

PROJECT : FIRE FIGHTING SYSTEM FOR OSBL FACILITIES ON PACKAGE BASIS

TENDER ID : 2022\_PDIL\_674308\_1 TENDER REF NO. : PNMM/PC-183/E- 4012/NCB
OWNER : M/s TALCHER FERTILIZERS LIMITED



SL. NO	DOCUMENT NO	PAGE NO.	CI. No	ITB REQUIREMENT	BIDDERS QUERIES	PMC REPLIES
1	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	5 of 7	4	FIRE WATER NETWORK DESIGN BASIS  vii. Hydraulic model for entire fire water network in AFT Fathom/PIPENET software shall be preferred.	We propose to use PIPENET Software for hydraulic calculation which is widely used in the Indian Industry and abroad as well. Please confirm.	NIT shall be followed. However for our review & approval bidder to provide required inputs.
2	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	7 of 7	6	HAZARDOUS AREA CLASSIFICATION AND HAZOP The hazardous area classification as per IS-5572 shall be done bidder along with the submission of hazardous area classification drawings & documents. HAZOP study shall be done by bidder of fire fighting system.	We understand the Hazardeous area classification ( if any ) for OSBL FF areas only will be in our scope. Kindly confirm	Bidder's understanding is correct, only OSBL areas shall be in bidder scope for hazardous area classification.
3	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	4 of 7	3	3. FIRE WATER PUMPS & JOCKEY PUMP Total 10 No. of Fire Water Pumps (6W+4S) shall be installed to fulfil fire water requirement of entire Talcher Fertilizer complex. Working Capacity of each pump shall be 800 m3/hr (refer FW pump datasheet), however Fire Fighting Contractor shall select capacity of pump based upon actual fire water demand of entire Talcher Fertilizer complex. 4 No. of working pumps shall be electrical driven & shall be connected to emergency power supply. 2 no. of working pumps shall be diesel engine driven. 4No. of Fire Water pumps (standby) shall be diesel engine driven.	Working capacity mentioned here is 800 m3/hr. But the Fire Water demand for main Plant Facilities is appx 5280m3/hr. Hence each of the 6 nos. working pump capacity shall be 880 m3/hr. However as per Process Datasheet for Fire Water Pump (FWPC-101A/B/C/D/E/F/G/H/I/J), the working capacity given is 800 m3/hr. and the rated capacity given is 880 m3/hr. Kindly clarify	Under review. Ammendment if required shall be issued shortly.
4	PC183-DD-7512-FWPC-101 PROCESS DATA SHEET FOR FIRE WATER PUMP (FWPC- 101A/B/C/D/E/F/G/H/I/J)	2 of 4	ITEM NO. FWPC- 101A/B/C/D/E/F/G/H/I/J	MOC : Casing Cl, Impeller CS	As per TAC Fire Protection Manual, Clause No.7.4.1.3 Parts of pumps like impeller, shaft sleeve, wearing ring etc. shall be of non-corrosive metal preferably of brass or bronze or stainless steel. However the MOC of impeller considered is CS as per the Process Datasheet of Fire Water Pump. Kindly clarify the MOC of Impeller	Under review. Ammendment if required shall be issued shortly.
5	PC183-DD-7512-FWPC-102 PROCESS DATASHEET FOR JOCKEY PUMP (FWPC-102 A/B)	2 of 4	FWPC-102 A/B	MOC : Casing CI, Impeller CS	As per TAC Fire Protection Manual, Clause No.7.4.1.3 Parts of pumps like impeller, shaft sleeve, wearing ring etc. shall be of non-corrosive metal preferably of brass or bronze or stainless steel. However the MOC of impeller considered is CS as per the Process Datasheet of Fire Water Pump. Kindly clarify the MOC of Impeller	Under review. Ammendment if required shall be issued shortly.
6	PC183-DD-7512-FWPC-101 PROCESS DATA SHEET FOR FIRE WATER PUMP (FWPC- 101A/B/C/D/E/F/G/H/I/J)	3 of 4	ITEM NO. FWPC- 101A/B/C/D/E/F/G/H/I/J	5. Pump Minimum Flow should not be more than 20% of Rated Flow.	We are providing Pump minimum flow as per Pump vendor. Kindly confirm	NIT Conditions shall prevail.
7	PC183-DD-7512-FWPC-102 PROCESS DATASHEET FOR	3 of 4	FWPC-102 A/B	3. Pump Minimum Flow should not be more than 20% of Rated Flow.	We are providing Pump minimum flow as per Pump vendor. Kindly confirm	NIT Conditions shall prevail.
8	JOCKEY PUMP (FWPC-102 A/B)  PC183-TFL-4012-603-SEC VI-3.0  SECTION VI-3.0  DESIGN PHILOSOPHY-PROCESS	6 of 7	5	5. OPERATING PHILOSOPHY The main delivery header prior to the bypass connection shall be provided with pressure transmitter and the bypass line shall be provided with pneumatic operated control valve with water being returned to Fire Water reservoir.	Pneumatic operated control valve is not indicated in the P&ID of FWPH which is also a part of NIT. However it is specified in clause no.5 of the Design Philosophy - Process that Pneumatic operated control valve to be provided in the recirculation line. But as per our previous experience with HAZOP Pressure operated control valve is required instead of Pneumatic operated control valve. Hence kindly clarify / confirm the type of Control Valve to be used here.	Attached drawing is schematic only for indicative purpose. Bidder to provide either pneumatic or Hydraulic control valves as per best engineering practices.
9	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Control Valve ( Pressure Operated ) in the recirculation line to FW Tank		
10	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Isolation Valves for maintenance of Control Valve ( Pressure Operated ) in the recirculation line to FW Tank	Isolation Valve in the upstream & downstream of the Control Valve ( in the recirculation line to FW Tank ) is not indicated in the Schematic arrangement. But as per our previous experience with HAZOP Isolation valve is required in the upstream, downstream of the Control Valve and also a byepass line with Isolation Valve. Hence kindly clarify / confirm the requirement of these isolation valves & also the type of Isolation Valve	Attached drawing is schematic only for indicative purpose. Bidder to provide arrangement as per best engineering practice.
11	PC183-DD-7512-FWPC-101 PROCESS DATA SHEET FOR FIRE WATER PUMP (FWPC- 101A/B/C/D/E/F/G/H/I/J)	3 of 4	ITEM NO. FWPC- 101A/B/C/D/E/F/G/H/I/J	Notes:  10. Basket type strainer along with companion flanges, 1" drain valve, one vent valve and local DPI to be included in the scope of pump vendor. Max. Pressure drop under 50 clogged Vendor shall furnish the calculation sheet for approval.conditions should be lower than 0.15 kg/cm2. Basket strainer size shall be equal to pump suction size.	Y-Strainer is indicated in the suction line of fire Water Pumps, but as per Notes No.10 of Process Datasheet for Fire Water Pumps, Basket Strainer is required. This deviates with the PMS Class BG 24 which calls for T Strainer / Y Strainer for sizes of 2" to 24". Hence we request you to kindly clarify the type of strainer to be used in the Suction line of Fire Water Pumps. In case of Basket Strainer, kindly provide the datasheet / specification.	Under review. Ammendment if required shall be issued shortly.
12	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Y-Strainer is indicated in the Suction Line of Fire Water Pumps		
13	PC183-DD-7512-FWPC-102 PROCESS DATASHEET FOR JOCKEY PUMP (FWPC-102 A/B)	3 of 4	FWPC-102 A/B	Notes:  8. Basket type strainer along with companion flanges, 1" drain valve, one vent valve and local DPI to be included in the scope of pump vendor. Max. Pressure drop under 50 clogged conditions should be lower than 0.15 kg/cm2. Basket strainer size shall be equal to inlet line size. Vendor shall furnish the calculation sheet for approval.	Y-Strainer is indicated in the suction line of fire Water Pumps, but as per Notes No.8 of Process Datasheet for Fire Water Pumps, Basket Strainer is required. This deviates with the PMS Class BG 24 which calls for T Strainer / Y Strainer for sizes of 2" to 24".  Hence we request you to kindly clarify the type of strainer to be used in the Suction line of Fire Water Pumps. In case of Basket Strainer, kindly provide the datasheet / specification.	
14	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Y-Strainer is indicated in the Suction line of Jockey Pumps	, , , , , , , , , , , , , , , , , , , ,	
15	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Scheme for DV	In the DV arrangement downstream byepass valve and upstream strainer is not indicated. However from the Clause No.4.2 ( Page 7 of 14 ) of Design Philosophy Piping we understand that the downstream bypass valve and Strainer upstream of DV is required. Kindly confirm our understanding	NIT conditions shall prevail. DV shown in schematic is only for indicative purpose. Bidder to provide arrangement as per their best engg. Practice.
16	Dwg. No. PC183-7115-0046 Rev.0 SCHEMATIC ARRANGEMENT FOR FIRE FIGHTING			Scheme for DV	Though Plug valve is indicated in the DV arrangement, we understand that the valve should be gate valve. Kindly confirm.	P&ID is for indicative purpose only, Bidder to provide required system as per best engineering practice.
17	TS-2001 PAINTING SPECIFICATION)	16 of 31		TABLE - 1 Remarks - C4, C5	Kindly clarify what is C4 & C5 mentioned in remarks. The details of the same are not mentioned in the Tender. Kindly provide	C4 & C5 shall be used for highly corrosive environment, which details are included in TS-2001
18	TS-2001 PAINTING SPECIFICATION)	26 of 31		7.0 COLOURS Fire fighting Piping Red 3002 4.1 Fire Hydrant System	We are providing Fire Red as per IS 5 Shade 536 ( for Pipes )	As per TS-2001-Red(RAL-3002) shall be used for Fire Fighting Piping.
19	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	4 of 14		Above ground fire water piping shall be painted as per painting specification and the paint shall be conforming to shade as per IS 5.	No. and the River of the Control of	A TO 0004 ODEV/DA 7040)   # .
20	TS-2001 PAINTING SPECIFICATION)	26 of 31		7.0 COLOURS Structures upto 2 MT BLACK 9005	We are providing Black as per IS 5 relevant Shade	As per TS-2001-GREY (RAL-7010) shall be used for structures.
21	PC183-TFL-4012-603-SEC VI-6.0 ANNEXURE II DESIGN PHILOSOPHY – GENERAL CIVIL & DESIGN BASIS	37 of 76	2.6	2.6 WATER SUPPLY Existing drinking water piping shall be extended to new facilities. Adequacy of header branch line etc. shall be ensured; else additional lines shall be run. Drinking water taps and fittings shall be of stainless steel.	Kindliy provide the Tie in point at which client will provide the Drinking water supply to be Fire Station Building and Fire Water Pump House	Owner shall provide instrument air/service water/plant air/ drinking water at battery limit of fire water pump house, fire control room etc., facilities,and bidder has to take tapping from available point.



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22	PC183-TFL-4012-603-SEC VI-6.0 ANNEXURE II DESIGN PHILOSOPHY – GENERAL CIVIL & DESIGN BASIS	38 of 76	2.7.2	is not available, septic tank/soak pit shall be provided.	NTP). Where system  Kindly clarify whether sewerage system is available near the Fire Water Pump House, Fire Station Building and Fire Brigade vehicle parking Bldg. Kindly provide the Tie in point	Fire Station Building, Fire Water Pump House and Fire Brigat Vehicle Parking Building. From respective buildings to STP, the pipeline laying shall be by other package.
23	Material Specification			MVW Spray Nozzle	Kindly provide the Technical Specification / MOC of MVW Spray nozzle. Kindly clarify whether strainer is required along with the MVW Spray nozzle	SS spray nozzle shall be used.
24	Material Specification			HVW Spray Nozzle	Kindly provide the Tehcnical Specification / MOC of HVW Spray nozzle	
25	Material Specification			QB detectors	Kindly provide the Technical Specification / MOC of QB Detectors	BRASS, NICKLE CROME plated QBD detector shall be used
26	Material Specification			Fire Brigade Inlet	Kindly provide the Technical Specification for Fire Brigade Inlet	Gun metal IS 318
27	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		1	RWT-DM-CPU-ETP-STP PACKAGE : Water Treatment Plant Raw Water Plant Effluent Treatment Plant Sewage Treatment Plant	Kindly claify the scope, type and extent of area to be considered for the Buildings list under this clause	As per attachment 5 in NIT.
28	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		5,6	Admin Building ( Existing ) & Technical Building ( Existing )	GA Drawing is attached along with the Tender. We understand from the GA Drawings that both the Admin Building & Technical Building has G+2 floor and similar to each other. Kindly confirm.	Kindly note technical building and admin building are two building blocks of one complex. First one is Technical bldg as second one is Admin.
29	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		5,6	Admin Building ( Existing ) & Technical Building ( Existing )	However kindly provide the False Ceiling details which is required to ascertain the additional sprinklers required inside ceiling void	It has been planned to provide False Ceiling in board room a two other rooms in admin buidling. Details shall be provided during engg phase.
30	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		5	Admin Building ( Existing )	In case of exising false ceiling in the Admin Building, kindly clarify the following  1) Kindly clarify the type of false ceiling provided  2) Kindly clarify the scope of removing & refixing or reinstallation of the false ceiling	(1) Type of false ceiling: 12.5 mm thick fully Perforated Gyps Board tile will be provided for false ceiling work in constructio of New Buildings (control room, substation, board room etc.) that will be done by separate contractor. (2) There is no existing false ceiling in Technical building. Admin is under renovation.
31	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		7	Canteen	We understand from the GA drawing of Canteen that there is no false ceiling in the Canteen area. Kindly confirm the same	In canteen building, there is no provision for false ceiling.
32	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		8	Central Store (Existing)	The central store size is 71.1m x 51.5m as per Plot Plan, however it is mentioned as 74m x 36.5m as per Tentative Central Store Plan. Kindly provide the final size & drawing     Kindly provide us the Sectional Drawings indicating the Height & architecture of Central Store	1.0 Kindly consider the size of central store is 74 m x 36.5 m tendering purpose. 2.0 Sectional view is not available existing structures, bidder advice to visit the site for more details.
33	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		9	Elect & Inst Workshop (Existing)	GA Drawing of Electrical & Instrumentation Workshop is attached along with the Tender. Kindly provide us the Sectional Drawings indicating the Height & architecture of Workshop	Sectional view are not avaliable for existing structures as of now, bidder is advice to visit the site for more details.
34	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		10	Mech Workshop (Existing)	<ol> <li>The Mechanical Workship size is 73.1m x 41.2m as per Plot Plan, however it is 73m x 40m as per GA Drawing of Mechanical Workshop. Kindly provide the final size &amp; drawing</li> <li>Kindly provide us the Sectional Drawings indicating the Height &amp; architecture of Mechanical Workshop</li> </ol>	1.0 Kindly consider the size of Mechanical Workshop is 73.1 41.2m for tendering purpose.     2.0 Sectional view are not avaliable for existing structures, bidder is advice to visit the site for more details.
35	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		11	First Aid Centre (Existing Fire Station)	1) We understand that the Sprinkler system is to be provided for the First Aid Centre only and not for the Fire Station (existing) 2) Kindly clarify whether First Aid Centre is inside Existing Fire Station 3) Kindly provide the GA & Section Drawings of the Existing Fire Station & First Aid Centre along with False Ceiling details	1.0 Existing fire station is being renovated and planned to be converted as First aid Building and Sprinkler system is to be provided for the same.  2.0 yes  3.0 Sectional view are not avaliable for existing structures, bidder is advised to visit the site for more details.
36	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		12	Training Centre (Existing)	1) First Floor & Second floor plans are available in the Traning Center GA Drawing. Kindly provide the details of the Ground Floor to enable us to decide the extent of sprinkler protection required.  2) False Ceiling details are not provided along with GA Drawing. This is required to ascertain the extent of sprinkler protection in Ceiling void.  3) Sectional drawing of Traning Centre is not attached along with Tender	1.0 Ground Floor details are not available. 2.0 No false ceiling is envisaged in Training centre. 3.0 Sectional view are not avaliable for existing structures, bidder is advised to visit the site for more details.
37	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		13	Vikrampur Guest House Renovated 2 Floors x 2 Wings (Existing)	We understand that the Renovated portion of the Vikrampur Guest House only to be provided with new Sprinkler System. Kindly confirm	Kindly note, the whole building of Vikrampur Guest Hose should be provided with Sprinkler System
38	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		13	Vikrampur Guest House Renovated 2 Floors x 2 Wings (Existing)	As per List of facilities for Spray / Sprinkler System, it is mentioned as "Vikrampur Guest Hose Renovated 2 Floors x 2 Wings ( existing ) to be protected with sprinkler system. However only one wing is referred in the GA Drawing of Vikrampur Guest House drawing. Kindly indicate the other wing which is to be protected with Sprinkler System	
39	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		13	Vikrampur Guest House Renovated 2 Floors x 2 Wings (Existing)	Only Ground Floor plan of Vikrampur Guest House is attached along with Tender. Kindly provide the GA Drawing of all the floors and elevation drawings along with False ceiling details.	GA Drawing are not avaliable for existing structures , bidder is advised to visit the site for more details.
40	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		14	CISF Barracks (6 Nos. Existing Buildings)	Kindly provide us the Sectional Drawings indicating the Height & architecture of CISF Barrack Bldg & false ceiling details	Sectional view are not available for existing structures, bidder advised to visit the site for more details. False ceiling shall no be provided in CISF Barrack.



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	ATTACHMENT- 05			CISF Barracks 01 New Quarter Guard Building	The Location of CISF Barrack is not indicated in the Plot Plan. Kindly provide.	kindly refer the Attached township Plan.
	LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE		15			·
	FIGHTING & GAS FLOODING SYSTEMS					
42	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE		15	CISF Barracks 01 New Quarter Guard Building	Kindly provide us the Sectional Drawings indicating the Height & architecture of CISF Barrack Bldg.	Sectional view are not avaliable.
	FIGHTING & GAS FLOODING SYSTEMS ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR		45	CISF Barracks 01 New Quarter Guard Building	Kindly provide the details of false ceiling to enable us to calculate the quantity of sprinklers & its piping and to arrive at the quantity	False ceiling shall not be required in Quater Guard Building and CISF Barracks.
43	SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		15			
44	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS		16	Trainee Hostel (Existing)	We understand from the GA & Sectional of the Training Hostel that there is no False Ceiling in this building. Kindly confirm	False ceiling shall not required in Training Hostel.
45	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE		18	Sub station ( Bagging Plant)	Kindly provide the GA Drawing / Rating & Number of Transformers in the Substation ( Bagging Plant )	Tentative size of cable cellar and Tentative details of Transformers shall be provided in Amendment , if required.
46	FIGHTING & GAS FLOODING SYSTEMS ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE		18	Sub station ( Bagging Plant)	Kindly provide the Cable Tray details of the Substaion ( Bagging Plant )	Tentative size of cable cellar and Tentative details of Transformers shall be provided in Amendment, if required.
47	FIGHTING & GAS FLOODING SYSTEMS  ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS			New Buildings	In case of new buidlings, kindly clarify the following  1) Kindly provide the false ceiling details  2) Kindly clarify the type of false ceiling provided	(1) Under Renovation of existing buildings under Non Plant building Contractor scope(not in FF scope)- 12.5 mm thick fully Perforated Gypsum Board tile will be provided for false ceiling work in construction of New Buildings (control room, substation, board room etc.) / renovation existing buildings. (2) Fire fighting Bidder scope Buildings, kindly refer NIT, civil section 3.2.3- Architectural design philosophy- False ceiling shall be either Gypsum board false ceiling or Armstrong false ceiling or combination of both as per direction of owner.  However, work related to civil, for the execution and
48	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS			Existing Buildings	In case of exising false ceiling in the exising buidlings, kindly clarify the following  1) Kindly provide the false ceiling details  2) Kindly clarify the type of false ceiling provided  3) Kindly clarify the scope of removing & refixing or reinstallation of the false ceiling	commissioning of fire fighting System shall be in the scope of the bidder.  (1) Under Renovation of existing buildings under Non Plant building Contractor scope(not in FF scope)- 12.5 mm thick fully Perforated Gypsum Board tile will be provided for false ceiling work in construction of New Buildings (control room, substation, board room etc.) / renovation existing buildings. (2) Fire fighting Bidder scope Buildings, kindly refer NIT, civil section 3.2.3- Architectural design philosophy- False ceiling shall be either Gypsum board false ceiling or Armstrong false ceiling or combination of both as per direction of owner.  (3)Scope of removal or fixing of false ceiling in other existing building is not in FF bidder's scope.
49	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL FIRE FIGHTING SYSTEM OSBL, TFL, TALCHER	SHEET 36 OF 89	13.1	The intent of this specification is to define the functional and design requirements for an Integrated Fire Alarm System for buildings of Entire Plant area. This specification covers the requirements for selection, design, and engineering, manufacture, supply, inspection, installation, testing at site and commissioning of the system. The list of buildings & plant area shall be as per the following (for this please also refer piping input/layout for Fire fighting system attached elsewhere in the NIT)	4. Height and False sealing detail of Electrical & Instrument Workshop. 5. Height and False sealing detail of Mechanical Workshop. 6. Height and False sealing detail of Training Center 7. GA/Cross sectional drawing of 132 KV Substation Building . 8. GA/Cross sectional drawing of Main Receiving Subststion (MRSS) Building . 9. GA/Cross sectional drawing of Offsite & Utility Subststion (OUSS) Building . 10. GA/Cross sectional drawing of EDG Building . 11. GA/Cross sectional drawing of Cooling Tower subststion building . 12. GA/Cross sectional drawing of Bagging subststion building . 13. Height and False sealing detail of Fire station building and control Room . 14. GA/Cross sectional drawing of Truck Parking Area & worker room . 15. GA/Cross sectional drawing of Ash Dyke package substation and pump house 16. GA/Cross sectional drawing of NG Metering Skid 18. GA/Cross sectional drawing of NG Metering Skid 18. GA/Cross sectional drawing of Fuel oil storage Area . 19. GA/Cross sectional drawing of WTP ,ETP & DM water substsion Building . 20. GA/Cross sectional drawing of Coal Handling Substation Building .	Details of Buildings have already provided in NIT. Further details if any, shall be provided during detailed engineering.
50	PC183-TFL-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK FIRE FIGHTING SYSTEM	SHEET 3 OF	4	Communication system interconnection & interfacing.	Bidder undrstand's that communication system is not part of current scope in subject tender.	It shall be in bidder scope
51	OSBI_TEL_TALCHER PC183-TFL-4012-603-SEC VI-3.0 FIRE FIGHTING SYSTEM OSBL, TFL, TALCHER DESIGN PHILOSOPHY-PROCESS	Sheet 7 of 7	5	Gas detection system shall be provided for process unit where hydrocarbons and flammable gas are being handled.	Bidder undrstand's that Hydrocarbon gas detection system is not part of current scope in subject tender.Kindly Confirm	Flange joints of piping system for hydrocarbon gas service in piping/equipment system in OSBL area is in bidder scope. (Ex. OSBL pipe rack etc.,). Furher details shall be provided during detail engineering
52	PC183-TFL-4012-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK	4	2 xxi)	Water spray system for outdoor diesel oil storage at fire water pump house, Diesel oil storage of emergency DG set, all pump houses, cable cellars, transformers (irrespective of oil content quantity), ammonia/toxic service equipment/areas, bagging plant building(empty bag storage area) and other applicable areas as per attachment 5 in NIT.	Please provide detail of Diesel oil storage of emergency DG set such dia and height of tank also please confirm is there foam system required for the same tank.	Amendment shall be issued, if required.
				<u> </u>	Please provide location of cable galleries and layout, section of each cable gallery unless specify no. of	To be provided during detailed engineering



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54	PC183-TFL-4012-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK	4	2 xxi)	Water spray system for outdoor diesel oil storage at fire water pump house, Diesel oil storage of emergency DG set, all pump houses, <u>cable cellars</u> , transformers (irrespective of oil content quantity), ammonia/toxic service equipment/areas, bagging plant building(empty bag storage area) and other applicable areas as per attachment 5 in NIT.	Please provide quantity and location of each transformer also provide GA drawing of each transformer, unless specify MVA rating and oil capacity of each transformer.	Tentative details of Transformers shall be provided in Amendment, if required.
55	PC183-TFL-4012-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK	4	2 xxvii)	Interconnection of fire & gas detection system of OSBL areas with Fire & Gas detection system provided by ISBL contractor and separate package vendors/agencies.	We understood that Fire & Gas Detection system for ISBL area & other packege shall be in the respective veodor scope, we shall provide only the provision of interconnection in our Fire & Gas Alarm System for the same. Also please specify type of provision for interconnection i.e. soft type of hard type.	Interconnection shall be in bidder's scope
56	PC183-TFL-4012-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK	4	2 xxxviii)	Automatic Fire detection & alarm system, detector mapping, interconnection & interfacing	Scope not clear	Refer Electrical section PC183-TFL-4012-603-SEC VI-7.0 fo clarity
57	PC183-TFL-4012-603-SEC-VI-2.0 CONTRACTOR'S SCOPE OF WORK	5	12.0	1 No. 415 V Feeder (63A) at Existing Substation near 132 KV Switchyard shall be made available by Owner for Construction Power. Tapping of Construction Power (on chargeable basis) from this feeder (including supply & erection of all required materials like structural supports for cable tray, cable trays, power cables, control cables, protection & metering, cable termination etc. as well as underground cabling work) and further distribution shall be in LSTK Contractor's scope.	What is charge per unit for Construction Power	Refer SCC clause no. 1.1.1 G of NIT.
58	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	4	2.0	FIRE WATER DEMAND: 'Fire water demand for Main Plant Facilities is approx. 5280 m3/hr.	As per specification, pump capacity specified 800 M3/Hr - 6 Nos, i.e. aggregate capacity 4800 M3, but requirement is 5280 M3, that means pumping capacity is less than water demand requirement. Please confirm whether we have to considered pump capacity based on total fire water demand i.e. 5280 M3.  Jockey pump capacity shall be 3-5 % of aggrgate pumping capacity.  In this context, Please note entire facilities fall under High Hazard -Class B as per TAC. The total capacity of static storage tank should be not less than 4 hours aggregate pumping capacity.	Under review. Change is envisaged. Accordingly Ammendme shall be issued shortly if required.  Refer PDS for Jockey pump PDS for capacity.
59	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	4	3.0	shall select capacity of pump based upon actual fire water demand of entire Talcher Fertilizer complex. 4 No. of working	Please confirm quantity and capacity of pumps are fixed.  As per specification, out of 6 nos waorking pump, 4 Nos are electric motor driven & 2 Nos area diesel engine driven, also 4 nos standby pumps shall be diesel engine driven which means 6 nos diesel engine driven pumps are to be considered as working & 4 Nos Electrical Motor Driven pumps shall be considered as standby. Please confirm  Also confirm whether the pump control panel shall be relay based control panel or PLC based control	Capacity and numbers of pumps are fixed as per NIT, however error in data Under review, accordingly Ammendment if required shall be issued shortly.  Pump control panel shall be relay based
60	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	7	4.2	Downstream of deluge valve shall be provided with galvanized carbon steel piping system.	We have gone through paining specification; it doesn't clarify that whether Paint will be done on GI pipe. please confirm	Refer the TS-2001 (Table-1)-Ref No-01, Uninsulated Piping- CS/GI temp upto 90 deg( Primer-P2: one coat of two pack zinc rich epoxy primer meeting SSPC Paint 20 level 1-DI 60 microns per coat)+(Finish Paint F1: One coat of two packs Polyamide Cured Epoxy-DFT-120 microns) i.e. Total DFT-180 Microns.
61	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	7	4.2.3	High velocity Water Spray (HVWS) System  To be provided for the followings locations, but not limited to.  - Transformers irrespective of oil content & location	Please provide quantity and location of each transformer also provide GA drawing of each transformer with specifying MVA rating and oil capacity of each transformer.	Tentative details of Transformers shall be provided in Amendment, if required.
62	PC183-TFL-4012-603-SEC VI-5.0 Design Philosophy – Rotating Equipment	12	3.1.3	Pumps shall have a continuously rising head characteristics from the specified duty point towards shut-off point, the maximum being at shut-off to enable parallel operation. Fire pumps shall be capable of furnishing not less than 150% of rated capacity at a head of not less than 65% of rated head.	The shut-off head of pump will be 120% of rated head. please confirm	NIT Conditions shall prevail.
63	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	52	13.22	The field devices shall be suitable for installation in hazardous area as per specified area classification.	Please share the plot plan with hazard classification marking	Bidder to provide hazardeous are classification for OSBL area Required inputs shall be shared later during detail engineering
				Impressed Current Cathodic Protection System	Please confirm pipe trench shall be in whose scope.	Please refer PC183-TFL-4012-603-SEC VI-4.0 attached with
64	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	55	14.00	Entire underground pipe work including those laid in concrete trench and filled with sand, the steel structures (within battery limit), tank bottom etc. shall be provided with cathodic protection in their battery limit. The scope shall include, site surveying to collect required information, design, supply, installation, commissioning, maintenance, monitoring and performance guarantee of impressed current cathodic protection system as per relevant Indian/IEC/BS/NACE Standards and codes of practices. Contractor shall have to design and engineering of complete CP system for their battery limit. The design life of CP System shall be 30 years.	Also specify the detail for road crossing i.e. through hume pipe or pipe culvert (by others)  In other section for under ground pipe shall be wrapped with anti-corossive tape, hence please confirm which one to be followed	NIT.
65				Drg No PC150-0000-0217 FIRE WATER PUMP MOUNTING HOUSE	Please specify the location of this pump house & construction of this room is under whose scope	Drawing No. PC150-0000-0217 is reference purpose only.
66	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS	3	1.10	Relative Humidity: Relative Humidity RH% - Relative Humidity 100	Please confirm the percent of relative humidity. Detectors shall not work in this relative humidity	Refer Site Meteorological data in totality in considering the design consideration.
67	-	-	-	General	We understood as per "general arrangement drawing of fire water reservoir" (page No. 1244 of 1261) the pumps shall have positive suction but the same negative suction as per "general arrangement of fire water mounting pump house. Please confirm which will be followed.	
68	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	30	8.2.1	cable shall be laid overhead. However, wherever overhead cable routing is not feasible LSTK Contractor can go for cable trench / slit (Refer PDS attached with the NIT) as per the site requirement.	Please share cable trench layout.	Same shall be finalised during detailed engineering
69	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS		Clause No. 2	FIRE WATER DEMAND Fire Water Demand shall be calculated to fight two major fire contingency anywhere in the installation. For the purpose of calculating fire water demand, installation shall be divided in two sections.	As per tech. specs. Section No. PC183-DD-7512-FWPC- 101, the 6 Nos. working pumps (4 nos. motor driven plus 2 nos diesel engine driven) of capacity 880 cum/hr and total 5280 cum/hr. Please confirm the required effective capacity of FW Tank shall be 21120 cum.  We suggest to keep the level of FW pump house lower than the bottom of FW tank to get the water with positive suction and minimize the dead water storage in FW tanks.	Under review. Change is envisaged. Accordingly Ammendme shall be issued shortly if required.
70	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS PC183-DD-7512-FWPC- 101, FW Pump Data Sheet			Pump minimum flow should not be more than 20 % of rated flow.	The minimum flow should be as per pump manufacturer's recommendations and not limited to max. 20 % of rated flow. As per standard engineering practice minimum flow for FW pumps are 30 % to 40 %. Please check and confirm.	NIT conditions shall prevail.
71	PC183-TFL-4012-603-SEC VI-3.0 SECTION VI-3.0 DESIGN PHILOSOPHY-PROCESS			Requirement of re-circulation line from main discharge header to FW storage tank.	As per tender drawing 18" dia re-circulation line is shown with instruments. It is presumed that common recirculation line shall be used for testing of all pumps.	This drawing is schematic only for indicative purpose. Same may be finalised during detail engineering .
72	GENERAL			Piling work for fire station building and fire water pump house.	Please confirm scope of piling work for both building i.e. fire station building and fire water pump house.	Soil investigation extract is attached purely for reference only. Successful Bidder has to conduct the soil investigation for finalization of foundation type and detailed engineering works



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73	GENERAL			Approach road for movement of fire brigade vehicle.	Please confirm that the scope of approach road for fire brigade vehicle movement shall be from fire brigade vehicle parking building up to near coal, petcoke handling area, around the periphery of the building a tinterconnection to nearby road is in contractor scope of work.  If it is in contractor's scope please confirm the type of road required i.e. RCC road or Bituminous road.	Construction of all buildings in scope along with RCC grade slab in Fire Tenders parking area (both in Fire brigade cum control room building and fire brigade parking) and its peripheral road(bituminous) and its interconnection with existing plant road is in bidder's scope.
74	GENERAL			Leveling work	Please confirm that the area shall be provided graded up to average level of FGL.	Graded land shall be provided to the bidder. However micro grading works if any shall be in bidder's scope.
75	GENERAL			False ceiling of fire station building	Please confirm the scope of false ceiling of fire station building.	Please refer clause no. 3.2.3 of document no PC183-TFL-4012-603-SEC VI-6.0 which stated that internal ceiling finishes for office areas and meeting halls and fire control rooms of fire control building false ceiling shall be either gypsum board false ceiling or armstrong false ceiling or combination of both as per direction of owner. Further, false ceiling shall also have fire rating complying with safety requirements.
76	PC-183/E-4012/S-V SPECIAL CONDITIONS OF CONTRACT	305	14.3.2 and 14.3.3	Payments Terms for Civil work	Payments Terms for Civil work are not defined in the payment terms clause number 14.3.2 and 14.3.3-Kindly request you to provide the payment terms for Civil scope of work of this tender.	Payment of Civil Work is included in Clause no-14.3.3 "FOR SERVICES (including transportation, insurance, installation erection & commissioning and excluding training of owner's personnel"
77	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	367	3.0 Design Criteria	Fire Fighting Design Standard	We understand that, OSID standards 116 (i.e., Fire Protection Facilities for Petroleum Refineries & Oil/Gas Processing Plants) and OISD Std.189 (i.e., Fire Protection System for Onshore Drilling Rigs, Workover Rigs and Oil/Gas Production Installations) are not applicable for this project and firefighting system is to be designed as per IS standard mentioned in tender document. Please confirm	Applicable codes/standards/specifications as mentioned shall be followed.
78	PC183-TFL-4012-603-SEC VI-14 VENDOR LIST	1063	1.17	Fire water system - Approved Vendor	We understand that Fire water system approved Vendor list has to be followed by LSTK contractors who has no prior fire water system works experience in their past executed project. However, the LSTK Contractor who has In-house capabilities for Fire water system design or executed similar scope of work in the past contracts doesn't not require to follow the vendor list of Fire water system. They can do the fire water system design with in house capabilities.  Kindly confirm.	Approved vendor list/approved vendors provided in NIT shall be applicable.
79	Conceptual Fire water Layout of OSBL Facility	Drg. No: PC183-4012 921-001	Note 10: Power supply to FW Pump house shall be from substation OSBL	Location of substation for FW Pump	Kindly confirm, the exact location of OSBL Electrical substation building on plant layout for the FW Pump connection.	OUSS in Plot Plan.
80	PC183-TFL-4012-603-SEC VI-6.0  DESIGN PHILOSOPHY – GENERAL CIVIL & DESIGN BASIS	407	1.17	Demolition Structure details	Removal of Underground & above ground structures is in OSBL Contractor scope. Kindly provide existing Structure details (weight) which is to be demolished under this contract.	All the above and below ground structures have been already demolished by Owner. If any minor underground demolision shall be carried out by bidder.
81	PC183-TFL-4012-603-SEC-VI-A03 ATTACHMENT 3 PMS & VMS	1115		Piping Material Specification for Fire Water	In given the PMS list, there are four tag nos. i.e.B22ISG, B24, B24G, D24 are mentioned under the Fire Water service.  Request you to please confirm which PMS tag applicable for this project for fire water network?	B24, B24G, D24 are applicable
82	PC183-TFL-4012-603-SEC-VI-A03 ATTACHMENT 3 PMS & VMS	1115		Piping Material Specification for Fire Water	Detailed PMS B22ISG is missing in the Tender document. Request you to kindly provide us the same.	Not required
83	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	511	5.0	Electrical Room scope & details	We understand that Electrical Room construction scope is not in OSBL Contractor. Please confirm.	Electrical Room at Fire Water Pump House and Fire Station Building shall be in Bidder's scope.
84	PC183-TFL-4012-603-SEC VI-2.0 CONTRACTOR'S SCOPE OF WORK	340	2.1-13	Construction water	Kindly provide us the exact location of water pond for tapping of construction water.	Behind the 132 KV existing Switch yard.
85	PC183-TFL-4012-603-SEC VI-2.0 CONTRACTOR'S SCOPE OF WORK	340	2.112	Construction Power (on chargeable basis)	Kindly provide us the exact location on plant layout where construction power will be provided & also provide us the commercial charge of Power per kW.	Refer 132 kV Switchyard Substation in Plot Plan. For construction charges refer Refer SCC clause no. 1.1.1 G of NIT.
86	PC183-TFL-4012-603-SEC VI-2.0 CONTRACTOR'S SCOPE OF WORK	339		Interconnection of fire & gas detection system	Kindly provide us the existing Fire & Gas detection system technical details & Vendor name of ISBL contractor and separate package vendors/agencies to analyze the Integration scope.	shall be provided during detailed engineering
87	EM250-PNMC-530- MDS-001	394		Additional Vendors for EOT Crane	We have contacted all vendors who are listed under AVL of EOT crane. However; 04 out of 05 existing Vendors of EOT Cranes are not operating currently some of the companies are merged with another company or some of the companies are closed.  Hence kindly request you to provide us additional Vendor list for EOT Crane.	Bidder to share the response letter of Vendors.
88	ATTACHMENT- 05 LIST OF OSBL FACILITIES FOR SPRAY/SPRINKLER, BUILDING FIRE FIGHTING & GAS FLOODING SYSTEMS	1211-1261		Spray/Sprinkler system & Gas flooding system & OSBL, TFL plant for Buildings	This clause / page indicates that List of Facilities for Spray/Sprinkler, Building Fire Fighting & Gas Flooding OSBL, TFL Plant ". However, details / drawings etc. are not available. Please provide us GA Drg. showing plan, elevation and sectional view of equipment / area to be protected by spray / sprinkler system for following facilities:  1. Raw Water Treatment Plant (RWT) 2. Demineralized Water Plant – CPU (DM-CPU) 3. Effluent / Sewage Treatment Plant (ETP/STP) 4. Substation (WTP) 5. Substation (DM+CPU) 6. Substation (ETP+STP) 7. First Aid Centre (Existing Fire station) 8. Trainee Hostel (Existing) 9. Urea product handling (Bagging building) 10. Substation (Bagging plant) 11. Fire brigade station & fire control station (New) 12. EDG building and Panel Room 13. IA / PA Package	



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89	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	371		MVWS System	This clause / page indicates that MVWS System should be provided to various Equipment / areas.  However, details / drawings etc. are not available. Please provide us GA drg. showing plan, elevation and sectional view of equipment / area to be protected by spray / sprinkler system for following facilities:  1. Compressor seals  2. Lube oil consoles  3. Knock out drums (with hydrocarbon bearing service)  4. Cable cellars  5. Diesel/Petrol/Kerosene oil or any hydrocarbon liquid / oil tank  6. Coal/ Pet coke/ solid hydrocarbon material handling plant area  7. Pumps under racks  8. Empty bag storage area	Spray/Sprinkler system shall be as per bidders Enggineering. Major facilities covered in attachement 5 in NIT. However any other facilities required to complete the fire fighting sytem shall be done by bidder, and same shall be finalize during detail engineering
90	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	371		Water curtain System	This clause / page indicates that Water curtain System should be provided to various Equipment / areas. However, details / drawings etc. are not available. Please provide us GA Drg. showing plan, elevation and sectional view of equipment / area to be protected by spray / sprinkler system for following facilities:  1. Ammonia/ Toxic gas/ vapor compressor and pumps  2. Ammonia/ Toxic gas/ vapor storage tank  3. Ammonia liquid tanker loading area	Water curtain system shall as per detail engg. By bidder, if required as per codes/specifications to complete the fire fighting system
91	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	371 & 372		Sprinkler system with deluge valves	This clause / page indicates that Sprinkler system with deluge valves (dry type) should be provided to various Equipment / areas. However, details / drawings etc. are not available. Please provide us GA drg. showing plan, elevation and sectional view of equipment / area to be protected by spray / sprinkler system for following facilities:  1. Laboratory  2. Chemical room/storage area	Under Review, Ammendment if required shall be issued.
92	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	371 & 372		Sprinkler system (wet type with QBD)	The clause / page indicates that Sprinkler system (wet type with QBD) should be provided to various Equipment / areas. However, details / drawings etc. are not available in some cases. Please provide us GA drg. showing plan, elevation and sectional view of equipment / area to be protected by spray / sprinkler system for following facilities:  1. Meeting Room/Hall  2. Workshop building	Please refer attachment 9 in NIT.
93	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	372	4.3	Foam system for transformer area and hydrocarbon oil tank area	This clause / page indicates that "Foam system shall be provided for transformer area and hydrocarbon of tank area". Please note the following  TAC norms state " High Velocity Nozzles can be expected to extinguish fires involving liquids with flash points of 650 C (1500 F), or higher and should be installed where such flammable fluids constitute the hazard " and transformers are protected by HVWS system  TAC norms also state " For fluids flashing at below 650 C (1500 F), extinguishments are always not possible or even desirable and for these, Medium Velocity Water Sprayers need to be installed to provide cooling, controlling the burning and/or exposure protection " and hence for extinguishing fires of fluids flashing at below 650 C (1500 F) FOAM system stand provided  In view of the above please recheck and advise about foam system provision for transformers	NIT
94	PC183-TFL-4012-603-SEC VI-4.0 DESIGN PHILOSOPHY-PIPING	372	4.4		This clause / page indicates that "Gas flooding system with clean agent, diverter valve (if feasible), detectors & accessories for Control Room, Computer room, Computer console room, UPS room, Battery room, server/database rack room etc. Please note the following.  However as per Attachment - 05, Clean agent system is required to be provided to "Fire Brigade Station & Fire Control Station (new)".	Spray/Sprinkler/ Gas flooding system shall be as per bidders Enggineering. Major facilities covered in attachement 5 in NIT. However any other facilities required to complete the fire fighting sytem shall be done by bidder, and same shall be finalize during detail engineering
95	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	503	1.17	Area Lighting	We understand that, OSBL contractor shall provide adequate area lighting at site of construction, fabrication yards, storage yard and office etc. & Area lighting at Fire Water Pump House, Fire Station Building Fire Brigade Parking Building and for rest of the areas is not included in OSBL contractor scope. Please confirm.	All work related to civil, mechanical, and electrical and instruments for the execution and commissioning of fire fighting System shall be in the scope of the bidder.
96	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	503	1.21	All Electrical works	We understand that all electrical works associated with the followings shall be considered under scope of OSBL Contractor.  a) Fire Water Pump House b) Fire Station Building c) Fire Brigade Parking Building For Rest area other than mentioned above, electrical scope of any kind is not under the scope of OSBL contractor. Please confirm.	For scope refer clause No. 1.0 of Section VI-7.0.
97	PC183-TFL-4012-603-SEC VI-2.0 CONTRACTOR'S SCOPE OF WORK	339	xxvi		We understand that the Controlling and monitoring of Fire Pump house has to be done by centralized control room (i.e., the PLC based controller located in the fire control room).  Kindly confirm that signals of all the instruments (PT, FT etc.) & Deluge Valves from Fire Pump house & all the FW Piping has to be routed to the Centralized control room.  Confirm the exact location of Centralized Control room location on layout.	Please refer Conceptual fire water layout drawing no. PC183- 4012-921-001 attached in NIT.
98	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	542	13.11	Intelligent Addressable Dual Optical Smoke/Heat (Multi-sensor) Detector	We assume Smoke/Heat Detectors need not be provided in the internal buildings of the following facilities  1. Raw Water Treatment Plant (RWT)  2. Demineralized Water Plant – CPU (DM-CPU)  3. Effluent / Sewage Treatment Plant (ETP/STP)  4. All Substations (OSBL)  5. First Aid Centre (Existing Fire station)  6. Trainee Hostel (Existing)  7. Urea product handling (Bagging building)  8. EDG building and Panel Room  9. IA / PA Package  10. Laboratory  11. Chemical room/storage area  12. Meeting Room/Hall  13. Workshop building	Please refer clause 13.1 of Section VI-7.0. Fire Detection & Alarm System complete in all respect shall be in Bidder's scope.



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99	PC183-TFL-4012-603-SEC VI-7.0 DESIGN SPECIFICATION- ELECTRICAL	541 13.10	Automatic Fire Detectors	We assume Fire Detectors need not be provided in the internal buildings of following facilities:  1. Raw Water Treatment Plant (RWT)  2. Demineralized Water Plant – CPU (DM-CPU)  3. Effluent / Sewage Treatment Plant (ETP/STP)  4. All Substations (OSBL)  5. First Aid Centre (Existing Fire station)  6. Trainee Hostel (Existing)  7. Urea product handling (Bagging building)  8. EDG building and Panel Room  9. IA / PA Package  10. Laboratory  11. Chemical room/storage area  12. Meeting Room/Hall  13. Workshop building	Please refer clause 13.1 of Section VI-7.0. Fire Detection & Alarm System complete in all respect shall be in Bidder's scope.
100	GENERAL		Pipe Sleepers / supports stability	Kindly confirm for whether Pipe Sleepers / supports existing facility can be used by OSBL Contractor under this project or not? If yes, kindly provide its structural stability.	All work related to civil, mechanical, and electrical and instruments for the execution and commissioning of fire fighting System shall be in the scope of the bidder
101	GENERAL		Existing Cable Trays details	Kindly confirm whether existing Cable Trays facility can be used by OSBL Contractor under this project or not? If yes kindly provide its available space on the cable trays.	Power cable shall be laid on Overhead Cable Trays in entire plant. Space in Owner's Pipe rack(with prior approval required PMC/owner) may be used for laying of cable trays. In case, Owner's Piperack is not available in Cable Route, structure and cable trays support for cable Trays shall also be in Bidder's scope.
102	GENERAL		Power/substation area	Kindly confirm power/substation area for New Fire Brigade Building station / Parking Area	Detail engg. Is in bidder scope.
103	GENERAL		for New Fire Brigade Building PLC Control room for Integration	Kindly confirm PLC Control room location on plat layout for existing system Integration works.	It shall be inside the fire fighting pump house
104	GENERAL		GI Coating for FF Pipes	Please Confirm Galvanised Iron Coating thickness required for Fire Fighting pipes, fittings and flanges.	As per standard
105	GENERAL		Emergency Rescue vehicle scope	We presume that Emergency Rescue vehicle or Fire tender is not in scope of supply of OSBL Contractor.	Bidder understnding is correct
106	GENERAL		Ground Water Table depth	Kindly confirm Please provide us the Ground Water Table depth details	Ground water table is at approx. 2.5 to 3 m below ground.
107	GENERAL		Pilling	As per our understanding and soil investigation report given in the tender document, Soil bearing capacity of OSBL plant area is in acceptable range and pilling work is not required under OSBL contractor civil scope of work.  Please confirm.	Soil investigation extract is purely for reference only. Successful Bidder has to conduct the soil investigation for detailed engineering works.
108	GENERAL		Rock depth	Please confirm Rock depth in areas where civil scope is involved under OSBL scope.	Successful bidder has to conduct the soil investigation for finding out rock depths etc detailed engineering works
109	GENERAL		Storm / water Drains	Kindly provide storm water drain scope of this project. If we need to connect with existing storm water detain then Please provide the details of the same.	Strom water drain scope is already mentioned in NIT – to be provided for buildings up to tie in points at battery limits and inter connection with plant drains. Detailed drawings of storm water drainage system shall be provided to successful bidder.
110	GENERAL		Storage yard allotment	Kindly provide us the Storage yard allotment details (size & location in the Site)	Same shall be confirm after award of contract , depending upon the availability of space.
111	GENERAL		FW Pumps	Scope of work request for the NFPA design of the main fire water pump design however in tender pump datasheet FL/ UL requirement is not mentioned. We presume that main FW Pumps and Diesel Driven Engine are non UL/FM listed.  Please confirm.	Bidder shall comply the NIT requirement.
112	GENERAL		Approach road	We presume that only Bitumen road are requested under this tender and there is no requirement of RCC type road. Please confirm.	Construction of all buildings in scope along with RCC grade slab in Fire Tenders parking area (both in Fire brigade cum control room building and fire brigade parking) and its peripheral road(bituminous) and its interconnection with existing plant road is in bidder's scope.
113	GENERAL		EOT Crane & Motor type	We presume that EOT Crane & Motor are required type is non-Flame proof since area classification FW pump house is non hazardous. Please confirm.	Shall be confirmed during detail engineering.
114	GENERAL		Roads & Drain rectification	We have visited the site and observed that the Roads & Drains are already have been made at the Site. During FW main header or branch network laying we required to do road crossing at several locations by using Hume pipes / Culverts and for this work substantial breaking and redevelopment work will be required.  We presume that braking of existing road and drains and rectification of drains & restoration of roads is not included in OSBL contractor scope since substantial cost is associated with this work. Kindly confirm.	Kindly refer clause no. 3.1.10 of civil section of NIT - The CONTRACTOR shall redo / repair all the existing facilities viz. roads, paving, drainage etc. which are damaged during transportation, construction and erection activities performed by the contractor.
115	GENERAL		Inter-facing inputs	At multiple locations, interface with ISBL contractor is required. All the inputs required for the OSBL contractor related to interface work will be provided by Client as per approved project schedule. Any delay for submission of interface details from client side will absolve the OSBL contractor from the overall project delay.  Please confirm.	Please Refer clause 33.0 of GENERAL CONDITIONS OF CONTRACT (GCC).
116	GENERAL		Fire water pump house location	We have observed that, Fire water tank is partially underground. So in such case, to get the positive suction head we will require to install Fire water main pumps in sump (underground). In the given drawings it is not clear whether the fire water pump foundation is aboveground or in sump. Since in pump datasheet Capacity and head of the pumps are already given, we request you to confirm location of pump foundation. This point can't be decided during detailed engineering since substantial amount of soil excavation work will be required if pump foundation	Main water Fire pumps shall be in sump. Given drawing is for indicative purpose , bidder to provide the detail during engineering phase.
117	GENERAL			is in sump and we will required clarification at tender stage only.  Kindly request you to provided latest As-Built SLD (For us to ensure that the power source is adequate, of spare feeders in 3.3 KV switchboard, PMCC)	As per cl No. 1.4 of Sec VI-7.0, Bidder to indicate power requirement of respective feeders in Owner's OUSS Switchgears.



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118	GENERAL	Kindly request you to provide As- built drawings of Earthing layout, cabling layout, lightning protection layout and HAC layout (if required)	Being a LSTK Contract, Bidder to design the Electrical System.
119	GENERAL	We understand that for Indoor use IP-44 is adequate. Kindly confirm	Ingress protection of various electrical equipment/items shall be as specified in NIT.
120	GENERAL	From bid document our understanding is that DOL starter is used for large motors too please clarify.	Noted.
121	GENERAL	We understand that there is no APFC panel is required. If it is required kindly provide its detail specification.	No APFC Panel is required.